

Effect of growing environments, levels and scheduling of nitrogen application on growth attribute of malt barley (*Hordeum vulgare* L.) in North-Western Rajasthan

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SUMMARY

The field experiment was conducted to find out the effect of levels and scheduling of nitrogen application on growth parameters of malt barley (*Hordeum vulgare* L.) as affected by sowing dates during winter seasons of 2005-06 and 2006-07. The results showed that significantly higher growth attributing characters viz., leaf weight, stem weight, dry matter accumulation and heat unit efficiency of malt barley at 60 DAS, anthesis, 10 days after anthesis and at physiological maturity and spike weight only at anthesis, 10 days after anthesis and at physiological maturity of malt barley was observed under normal sown condition compared to late sown condition. Further, application of increasing levels of nitrogen from 60 to 90 kg ha⁻¹ significantly enhanced plant height, total number of tillers, leaf weight, stem weight, dry matter accumulation and heat unit efficiency of malt barley at 60 DAS, anthesis, 10 days after anthesis and at physiological maturity and spike weight only at anthesis, 10 days after anthesis and at physiological maturity of malt barley. Scheduling of nitrogen at 1/3 as basal + 1/3 at Ist irrigation + 1/3 at IInd irrigation brought a substantial improvement in growth attributing characters viz., leaf weight, stem weight, spike weight, dry matter accumulation and heat unit efficiency at anthesis, 10 days after anthesis and at physiological maturity of malt barley.

Key Words : Plant height, Total number of tillers, Leaf weight, Stem weight, Spike weight, Dry matter accumulation, Heat unit efficiency, Nitrogen levels, Growing environments, Nitrogen scheduling, Malt barley

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